

### BOARD OF ADJUSTMENT VARIANCE APPLICATION

Case Number: C10-18-01 Activity Number: 185A000	21Date Accepted:1/10/18
PROPERTY LOCATION INFORMATION	
Property Address: 518 S. PLACITA QUINCE	
Project Description: Detached Accessory Structure	
Zoning: Residential Single Family $QX-I$ Property Size (s	sqft): 36154.80
Number of Existing Buildings: 2 Number of Stories: 1	Height: 12' 10" & 11'
Legal Description: RANCHO DEL ESTE LOT 158	
Pima County Tax Parcel Number/s: 133-38-1750	
APPLICANT INFORMATION (The person processing the application and design	gnated to receive notices):
APPLICANT: STEVEN G. SIDES	
ADDRESS: 518 S PLACITA QUINCE, TUCSON AZ. 85748	
PHONE: ((520) 574-4496 FAX: ( ) EN	MAIL: sgsides1@gmail.com
PROPERTY OWNER (If ownership in escrow, please note): STEVEN G. SID	
ADDRESS: 518 S PLACITA QUINCE, TUCSON AZ. 85748	
PHONE: ((520) 574-4496 FAX: ( )	MAIL: sgsides1@gmail.com
PROJECT TYPE (check all that apply):  New building on vacant land New addition to existing building Existing building needs permits Landscaping / Screening substitution	Change of use to existing building New building on developed land Modification to wall/fence height Other
Related Permitted Activity Number(s): T17cM06843	
I hereby certify that all information contained in this application is complete an	d true to the best of my knowledge.
Steven G. Sides	12/5/2017
SIGNATURE OF OWNER/APPLICANT	Date



### **BOARD OF ADJUSTMENT - PROJECT DESCRIPTION**

Provide a description of the project including, but not limited to its lot area, square footage of proposed or existing structures, proposed use/s, is a multiphase project, etc. If this project is the subject of a rezoning or special exception request, HPZ review, or a zoning violation, please provide current status of that case.

Detached Accessory Structure
square footage of existing structures; 1456 house & 644.6 garage
square footage of proposed structures; 864
proposed use; model trains, work shop and storage
Design materials, wood frame, metal roof, engineered siding and concrete floor
Not a multiphase project
Will need variances for, Code 6.6.3 D
D. The total gross floor area (gfa) of all accessory structures shall not exceed 50%of the gfa of the principal structure
Accessory structures less than 200 square feet gfa are exempt from this requirement
Requesting variance for square footage to exceed 50%
Case Number: C10- 18-01 Activity Number: T185A00021



### APPLICANT'S REQUEST TO THE BOARD OF ADJUSTMENT

Provide applicable UDC Section reference, what is required and what is proposed/provided for each variance requested.		
The variance we are seeking is for gross floor area		
Square footage is 854', required is 728		
Per unified Code 6.6.3 D, requesting a variance to exceed total gross floor area of 50%		
A rest and a second		
Case Number: C10- 18-01 Activity Number: T185A00021		



### **BOARD OF ADJUSTMENT - REQUIRED FINDINGS**

Arizona State Statutes and UDC Section 3.10.3.K. state that the Board may grant a variance <u>only</u> if the variance request complies with each and every one of these "Findings" in full. It is up to the applicant to explain to the Board how the request complies with each Finding. **Important Note:** Do not leave any "Finding" unanswered or marked "Not Applicable" or "N/A".

	ot Applicable" or "N/A".
• (7	That, because there are special circumstances applicable to the property, strict enforcement of the UDC will deprive such property of privileges enjoyed by other property of the same classification in the same zoning district;
Ot	her property of the same classification and in the same zoning district, will not be deprived the same privilege
Sc	q. footage for room for track installation (O27 Gage), trolley and pulleys and off track storage
2. <b>N</b> o	That such special circumstances were not self-imposed or created by the owner or one in possession of the property; o special circumstances were imposed or have been created
Ne	eed more room to set up track layouts, minimum of 4' X 8' each and work/repair space
3. Th	That the variance granted is subject to such conditions as will assure that the adjustment authorized shall not constitute a grant of special privileges inconsistent with the limitations upon other properties in the vicinity and zone in which such property is located; ne variance granted will place no limitations upon other properties in the vicinity or zone
_	special privileges are to be implemented, detached structures are allowed in the zone
	th more square footage
	ar mare equals testage
4. Be	That, because of special circumstances applicable to the property, including its size, shape, topography, location, and surroundings, the property cannot reasonably be developed in conformity with the provisions of the UDC; cause of special circumstances, includes square footage the building
_	
_	n not be reasonably be constructed in conformity with the provisions of the UDC
Ne	ed increased square footage to place train layouts of a minimum size, engineered by the manufacturer (Lionel)
٥-	se Number: C10- 18-01 Activity Number:Activity Number:
Ca	Se Number: UTU- 10 UT Activity Number: 1100/NUUUX



### BOARD OF ADJUSTMENT - REQUIRED FINDINGS (CONTINUED)

<ol> <li>That the granting of the variance shall not be detrimental to the public welfare or injurious to other property or improvements in the neighborhood in which the property is located;</li> </ol>
Is not impeding on others property, the granting of this variance will not be detrimental to
the public welfare or injurious to other property or improvements in the neighborhood
Will be constructed to applicable building codes and well constructed
<ol> <li>That the proposed variance will not impair an adequate supply of light and air to adjacent property, substantially increase congestion, or substantially diminish or impair property values within the neighborhood; and,</li> <li>Proposed structure, will not impair an adequate supply of light and air to adjacent property</li> </ol>
will not increase congestion, Detached Accessory Structure is not for vehicles
Will increase property value
<ol> <li>That the variance, if granted, is the minimum variance that will afford relief and is the least modification possible of the UDC provisions that are in question.</li> <li>This variance, if granted is the least modification possible of the UDC provisions that are in question.</li> </ol>
per the City of Tucson Unified Development Code 6.6.3 D
Requesting minimum changes to allow for functional architectural and a aesthetically pleasing
structure, that will allow for O27 minimum radii curves

Case Number: <u>C10-</u> | 8-0| Activity Number: <u>TT8SA0002</u>

Parcel Number: 133-38-1750

### **Property Address**

Street Number	Street Direction	Street Name	Location
518	S	PLACITA QUINCE	Tucson

### **Contact Information**

Taxpayer Information:	Property Description:
SIDES FRANCINE M & STEVEN G JT/RS 518 S PLACITA QUINCE TUCSON AZ	RANCHO DEL ESTE LOT 158
85748-6834	

### Valuation Data

Valuation Year	Legal Class	Assessment Ratio	Total FCV	Limited Value	Limited Assessed
2017	RES OWNER OCC (3)	10.0	\$173,049	\$164,512	\$16,451
2018	RES OWNER OCC (3)	10.0	\$185,474	\$172,738	\$17,274

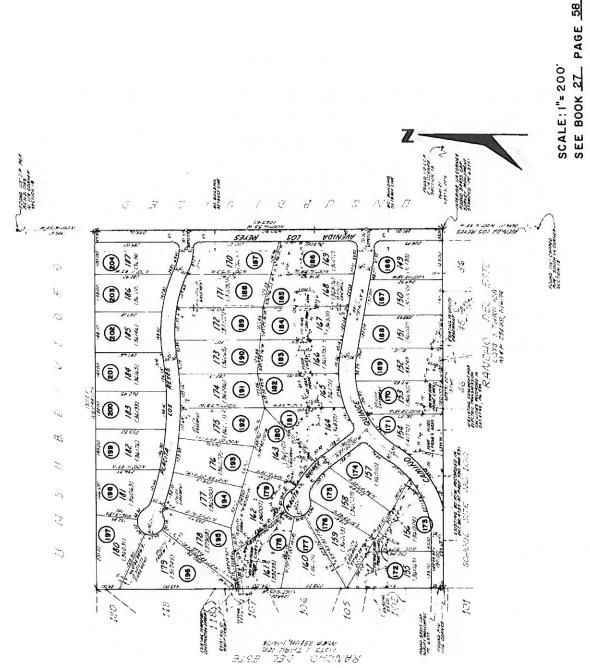
### **Property Information**

Township:	14.0	Section:	13	Range:	15.0E
Map & Plat:	27/58	Block:		Tract:	
Rule B District:	3	Land Measure:	1.00S	Group Code:	
Census Tract:	4017	File Id:	1	Date of Last Change:	7/8/2014
Use Code:	0131 (SFF	0131 (SFR GRADE 010-3 URBAN SUBDIVIDED )			

Property Apprai	ser: Stephen	Hamner Phone: (520	0) 724-3061		
Main Structure:					
Appraisal Date:	9/26/2014	Property Type:	Single Family Residence	Area ID:	Ed 7-050024-01-3
Processed:	12/31/1969	Building Class:	3	Physical Condition:	Fair
Total Living Area:	1,456	Garage Type:	Garage	Effective Construction Year:	1977
Garage Capacity:	4	Stories:	1	Patio Type:	Covered
Rooms:	6	Patio Number:	1	Quality:	Fair
Pool Area:	0	Exterior Walls:	Slump Block	Valuation Type:	00
Roof Type:	Built Up	Total Main:	\$165,602	Heating:	Forced
Total Control:	\$165,602	Cooling:	Refrigeration	Total Actual:	\$185,474
Bath Fixtures:	6	FCV Adjustment Factor:	1.000	Enhancement:	\$0
Last Calc:	0830				

ASSESSOR'S RECORD MAP
133-38 RANCHO DEL ESTE
LOTS 149 THRU 187

ACTION BY DATE
DRAWN A.H. 11/10/75
TRACED A.L. 11/10/75
APPROVED H.S.G. 11/10/77
RELEASED B.G. 12/2/7



92 61

(12) (12)



### P&DS TRANSMITTAL

FROM: Mark Castro

Lead Planner

**PROJECT:** T17CM06843

518 S Placita Quince – Detached Accessory Structure

TRANSMITTAL: January 10, 2018 \*\*REVISED\*\*

COMMENTS: The following comments are for the purpose of applying for a variance before the Board of Adjustment (UDC Section 3.10.1).

This site is located in the RX-1 zone (UDC 4.7.6). A single-family residence (SFR) is a permitted use in this zone (Table 4.8-3). See Use-Specific Standards 4.9.7.B.5 - 9.

### 6.6.3. SPECIFICALLY WITHIN RESIDENTIAL ZONES

D. The total gross floor area (gfa) of all accessory structures shall not exceed 50% of the gfa of the principal structure. Accessory structures less than 200 square feet gfa are exempt from this requirement.

The existing dwelling is 2,620 sqft. The proposed total GFA of accessory structures is 1,348 sqft., which exceeds 50% of the principal structure.

### 10/12/2017

Neighborhood Meeting for our Board of Adjustment Variance Application

Dear Neighbor,

We are proposing to build a barn in our backyard.

Per the City of Tucson Unified Development Code 6.6.3 C and 6.6.3 D.

Therefore this project will require a variance of the code requirements. The variance we are seeking is height and gross floor area.

Prior to submitting our variance to the City of Tucson Planning & Development Services Department, we are required to offer to meet with our neighbors to discuss our project and answer any questions and address any concerns you might have.

The meeting will be held on 10/30/2017 at 6:00 p.m. at our property 518 S Placita Quince. There will be an attendance sheet at the meeting, please be sure to sign in. If you are not able to attend the meeting and have questions and/or concerns, feel free to contact me at 520-850-9053.

A formal application for variances will be submitted to the City of Tucson Planning & Development Services Department. Once our application is processed, we will be scheduled for a Board of Adjustment public hearing in which you may attend and speak at if so desired. You will receive an official notice from the City as to the date, time and place of the Board of Adjustment public hearing as well as a comment form that you may fill out regarding our project.

Thank you and we look forward to meeting with you.

### NEIGHBORHOOD MEETING 10/30/2017 518 S. PLACITA QUINCE

PRNT NAME

### SIGN NAME

AMA BIEVING	Dana Blevius
hoseman faszkiet	Roseman Respect
Jun Blevins	TIP STANTINS
Dang Pat Porzio	Daniel Ton
Tanyaq v.m Lown C	Latian Lon
JAMES SULLNAW	Janny Jullan

### 11/30/2017

Subject: Summary of Neighborhood Meeting 10/30/2017

The meeting was held on the property, 518 S. Placita Quince Tucson, Az. 85748 Starting at 6:00 p.m. and ending at 7 p.m. and 8 people attended.

The planned drawing was made available for all to review and a brief explanation of the project was given. Then discussion centered around the 2 variances for height and square footage. Height seemed to be of a concern, but square footage wasn't.

Thank you

Atm 8. hila

### 11/30/2017

Subject: Clarification of meeting Notice

Dear Neighbor, on 10/12/2017 you received a notice from me regarding an offer to meet to discuss my project and the variances needed. This letter is to clarify the project; detached accessory structure, approximately 15' height and square footage 864, which will be used for model trains, work shop and storage.

Per the City of Tucson Unified Development Code sections 6.6.3 C and D.

- C. Accessory structures shall not exceed 12 feet in height, unless attached to a principal structure. If attached to the principal structure, maximum height permitted shall be the same as for the principal structure; and,
- D. The total gross floor area (gfa) of all accessory structures shall not exceed 50% of the gfa of the principal structure. Accessory structures less than 200 square feet gfa are exempt from this requirement.

Therefore this project will require variances of the code requirements. The variance(s) we are seeking are; proposed height of the structure is 15 feet. The total GFA of proposed and existing accessory structures is 1,348 sqft. The existing dwelling is 2,620 sqft."

Please contact me at #520-574-4496 if you have any question.

A formal application for variances will be submitted to the City of Tucson Planning & Development Services Department. Once our application is processed, we will be scheduled for a Board of Adjustment public hearing in which you may attend and speak at if so desired. You will receive an official notice from the City as to the date, time and place of the Board of Adjustment public hearing as well as a comment form that you may fill out regarding our project.

Thank you

Ston S. Siles



MiTek USA, Inc.

7777 Greenback Lane Suite 109 Citrus Heights, CA, 95610 Telephone 916/676-1900 Fax 916/676-1909

Re: SidesBarn

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by U.S. Components-Tucson, Az.

Pages or sheets covered by this seal: R52523458 thru R52523459

My license renewal date for the state of Arizona is September 30, 2019.

Arizon COA: 11906-0

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.



December 11,2017

Hernandez, Marcos

**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job Truss Truss Type Qty Ply R52523459 SIDESBARN T02 GABLE 15 Job Reference (optional) US Components. 8.130 s Sep 15 2017 MiTek Industries, Inc. Mon Dec 11 13:37:00 2017 Page 1 ID:on8zdgazLMUyhyDPFWt1SiyX7AG-qjavbZYwcCeVdsTmysYVI8tlO8yWvTL\_jkWWD2yAQqX Tucson, AZ - 85713, 24-6-8 2-4-3 4x6 || Scale: 3/16"=1" 4.50 12 3x4 < <sup>17</sup> <sub>5 18</sub> 15<sup>3</sup> 5x6 = 5x6 > 11 6 7x8 22,38 12 10 4x4 = 4x4 > 13 4.50 12 1 5x12 🚿 5x12 75x8 \\ **BUILDING DESIGNER SHALL NOTE** MAGNITUDE OF CALCULATED DEFLECTIONS. 65.68 12 18.00 12 1-8-9 18.11 12 68.72 413-7 2-3-8 1-5-8 Plate Offsets (X,Y)--[1:0-3-5,0-2-3], [2:0-3-4,0-2-3], [6:0-3-6,0-2-3], [7:0-3-11,0-2-7], [8:0-2-1,0-1-8] LOADING (psf) SPACING-2-0-0 CSI. I/defl L/d in (loc) **PLATES** GRIP Plate Grip DOL TCLL 16.0 1.25 TC 0.27 Vert(LL) 0.21 >999 360 185/144 MT20 TCDL 14.0 Lumber DOL 1.25 BC 0.43 Vert(TL) -0.51 11-12 >553 240 BCLL 0.0 Rep Stress Incr YES WB 0.85 Horz(TL) 1.07 n/a n/a Code IRC2012/TPI2007 BCDL 10.0 Matrix-MSH Weight: 129 lb FT = 20%

**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E \*Except\*

1-14,7-8: 2x6 SPF 1650F 1.5E 2x4 SPF 1650F 1.5E

**BOT CHORD WEBS** 

2x4 HF Stud/Std \*Except 2-13: 2x4 SPF 1650F 1.5E

REACTIONS. (lb/size) 8=969/0-5-8, 14=1018/0-5-8

Max Horz 14=-205(LC 11)

Max Uplift 8=-69(LC 11), 14=-96(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown. TOP CHORD

2-3=-2568/659, 3-4=-3003/627, 4-5=-3003/627, 5-6=-2573/648, 1-14=-811/304,

7-8=-848/297, 1-2=-1762/488, 6-7=-1748/471

BOT CHORD 12-13=-467/1528, 11-12=-496/2540, 10-11=-485/2545, 9-10=-315/1260, 13-14=-332/265 WEBS

4-11=-300/1821, 5-11=-63/596, 5-10=-473/162, 6-9=-105/487, 3-11=0/484,

3-12=-474/114, 1-13=-232/1210, 6-10=-247/1199, 2-12=-140/1204, 7-9=-209/1110,

2-13=-198/636

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=8.4psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-13 to 7-10-15, Interior(1) 7-10-15 to 9-0-0, Exterior(2) 9-0-0 to 13-0-0, Interior(1) 17-0-0 to 18-1-1, Exterior(2) 22-1-1 to 25-0-2 zone; cantilever left and right exposed; end vertical left and right exposed;C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33

Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Bearing at joint(s) 8, 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 14. 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Structural wood sheathing directly applied or 3-11-13 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing.

EXPIRES: 09/30/2019 December 11,2017

🛕 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTek® connectors. This design is based only upon parameters shown, and is for an individual building component, not a truss system. Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and property damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSITPI Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.



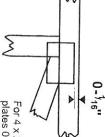
## Symbols

# PLATE LOCATION AND ORIENTATION



Apply plates to both sides of truss offsets are indicated.

Dimensions are in ft-in-sixteenths. Center plate on joint unless x, y and fully embed teeth.



edge of truss. plates 0- 1-8" from outside For 4 x 2 orientation, locate

required direction of slots in connector plates This symbol indicates the

\*Plate location details available in MiTek 20/20 software or upon request.

### PLATE SIZE

4 × 4

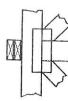
the length parallel to slots. to slots. Second dimension is width measured perpendicular The first dimension is the plate

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated

### BEARING



Min size shown is for crushing only number where bearings occur. reaction section indicates joint (supports) occur. Icons vary but Indicates location where bearings

## Industry Standards:

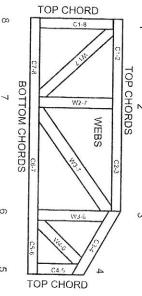
ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.

DSB-89: BCSI:

Installing & Bracing of Metal Plate Connected Wood Trusses. Guide to Good Practice for Handling, Building Component Safety Information Design Standard for Bracing

# Numbering System





JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO

NUMBERS/LETTERS CHORDS AND WEBS ARE IDENTIFIED BY END JOINT

## PRODUCT CODE APPROVALS

ICC-ES Reports

ESR-1311, ESR-1352, ESR1988 ER-3907, ESR-2362, ESR-1397, ESR-3282

truss unless otherwise shown. Trusses are designed for wind loads in the plane of the

section 6.3 These truss designs rely on lumber values Lumber design values are in accordance with ANSI/TPI 1 established by others.

© 2012 MiTek® All Rights Reserved



MiTek Engineering Reference Sheet MII-7473 rev. 10/03/2015

# General Safety Notes

## Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other

5

- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber
- 10 camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- 11. Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- . Top chords must be sheathed or pudins provided at spacing indicated on design.
- 14. Bottom chords require lateral bracing at 10 ft. spacing or less, if no ceiling is installed, unless otherwise noted
- 15. Connections not shown are the responsibility of others
- 16. Do not cut or alter truss member or plate without pror approval of an engineer
- 17. Install and load vertically unless indicated otherwise
- Use of green or treated lumber may pose unacceptable environmental, health or performance risks. Consult with project engineer before use
- Review all portions of this design (front, back, word and pictures) before use. Reviewing pictures alone is not sufficient words
- 20. Design assumes manufacture in accordance with ANSITPI 1 Quality Criteria



MiTek USA, Inc.

7777 Greenback Lane Suite 109 Citrus Heights, CA, 95610 Telephone 916/676-1900 Fax 916/676-1909

Re: SidesBarn

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by U.S. Components-Tucson,Az.

Pages or sheets covered by this seal: R52523458 thru R52523459

My license renewal date for the state of Arizona is September 30, 2019.

Arizon COA: 11906-0

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.



December 11,2017

Hernandez, Marcos

**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.

Job Truss Truss Type Qty Ply R52523458 SIDESBARN T01E GABLE 2 Job Reference (optional) US Components. Tucson, AZ - 85713. 8.130 s Sep 15 2017 MiTek Industries, Inc. Mon Dec 11 13:36:59 2017 Page 1 ID:on8zdgazLMUyhyDPFWi1SiyX7AG-MX0XODXIruWe?juaP91GDwLbekdHA0drU4myhcyA0qY 1-5-8 3-9-11 1-5-8 2-4-3 MT 1.5x3 ON EACH FACE OF BOTH ENDS OF UN-PLATED MEMBERS OR EQUIVALENT CONNECTION BY OTHERS. 4x6 || Scale: 3/16"=1" 3x4 = 3x4 > <sup>45</sup> 5 46 433 5x6 = 5x6 =11 7x8 22,38 12 10 4x4 = 4x4 = 13 4.50 12 5x12 5x12 75x8 \\ 8-9-6 BUILDING DESIGNER SHALL NOTE MAGNITUDE OF CALCULATED DEFLECTIONS. 65.68 12 18.00 12 18.11 12 68.72 413 1 1-5-8  $\hbox{\tt [1:0-3-9,0-2-7], [2:0-2-9,0-2-2], [6:0-2-10,0-2-2], [7:0-3-8,0-2-5], [8:0-2-1,0-1-8] \\$ Plate Offsets (X,Y)-LOADING (psf) SPACING-2-0-0 CSI I/defl L/d in (loc) **PLATES** GRIP TCLL 16.0 Plate Grip DOL 1 25 TC 0.27 Vert(LL) 0.21 >999 360 **MT20** 185/144 TCDL 14.0 Lumber DOL 1.25 BC 0.43 Vert(TL) -0.51 11-12 240 >553 BCLL 0.0 Rep Stress Incr YES WR 0.85 Horz(TL) 1.07 8 n/a n/a BCDL Code IRC2012/TPI2007 10.0 Matrix-MSH Weight: 145 lb FT = 20%**BRACING-**

TOP CHORD

BOT CHORD

LUMBER-

TOP CHORD 2x4 SPF 1650F 1.5E \*Except\*

1-14,7-8: 2x6 SPF 1650F 1.5E 2x4 SPF 1650F 1.5E

BOT CHORD **WEBS** 

2x4 HF Stud/Std \*Except\* 2-13: 2x4 SPF 1650F 1.5E

**OTHERS** 2x4 SPF No.2

REACTIONS.

(lb/size) 8=969/0-5-8, 14=1018/0-5-8

Max Horz 14=-205(LC 11)

Max Uplift 8=-69(LC 11), 14=-96(LC 10)

FORCES. (lb) - Max. Comp./Max. Ten. - All forces 250 (lb) or less except when shown.

TOP CHORD 2-3=-2568/659, 3-4=-3003/627, 4-5=-3003/627, 5-6=-2573/648, 1-14=-811/304,

7-8=-848/297, 1-2=-1762/488, 6-7=-1748/471 **BOT CHORD** 

12-13=-467/1528, 11-12=-496/2540, 10-11=-485/2545, 9-10=-315/1260, 13-14=-332/265

4-11=-300/1821, 5-11=-63/596, 5-10=-473/162, 6-9=-105/487, 3-11=0/484,

3-12=-474/114, 1-13=-232/1210, 6-10=-247/1199, 2-12=-140/1204, 7-9=-209/1110, 2-13=-198/636

### NOTES-

WEBS

1) Unbalanced roof live loads have been considered for this design.

- 2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=8.4psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-13 to 7-10-15, Interior(1) 7-10-15 to 9-0-0, Exterior(2) 9-0-0 to 13-0-0, Interior(1) 17-0-0 to 18-1-1, Exterior(2) 22-1-1 to 25-0-2 zone; cantilever left and right exposed; end vertical left and right exposed; C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33
- 3) Truss designed for wind loads in the plane of the truss only. For stude exposed to wind (normal to the face), see Standard Industry Gable End Details as applicable, or consult qualified building designer as per ANSI/TPI 1.
- 4) Provide adequate drainage to prevent water ponding.

5) Gable studs spaced at 1-4-0 oc.

- 6) This truss has been designed for a 10.0 psf bottom chord live load nonconcurrent with any other live loads.
- 7) \* This truss has been designed for a live load of 20.0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 8) Bearing at joint(s) 8, 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface.
- 9) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 14.
- 10) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or bottom chord.



Structural wood sheathing directly applied or 3-11-13 oc purlins.

Rigid ceiling directly applied or 6-0-0 oc bracing.

EXPIRES: 09/30/2019 December 11,2017

🛕 WARNING - Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-1473 rev. 10/03/2015 BEFORE USE. Design valid for use only with MiTe&c connectors. This design is based only upon parameters and properly incorporate this design into the overall building designer must verify the applicability of design parameters and properly incorporate this design into the overall building design. Bracing indicated is to prevent buckling of individual truss web and/or chord members only. Additional temporary and permanent bracing is always required for stability and to prevent collapse with possible personal injury and properly damage. For general guidance regarding the fabrication, storage, delivery, erection and bracing of trusses and truss systems, see

ANSITPH Quality Criteria, DSB-89 and BCSI Building Component Safety Information available from Truss Plate Institute, 218 N. Lee Street, Suite 312, Alexandria, VA 22314.

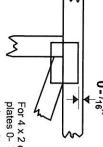


## Symbols

# PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y and fully embed teeth. Apply plates to both sides of truss Dimensions are in ft-in-sixteenths offsets are indicated.



edge of truss. For  $4 \times 2$  orientation, locate plates 0-  $\frac{1}{1}$ - $\frac{1}{1}$  from outside

connector plates. required direction of slots in This symbol indicates the

\*Plate location details available in MiTek 20/20 software or upon request.

### PLATE SIZE

4 × 4

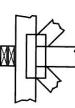
width measured perpendicular to slots. Second dimension is the length parallel to slots. The first dimension is the plate

## LATERAL BRACING LOCATION



if indicated. output. Use T or I bracing by text in the bracing section of the Indicated by symbol shown and/or

### BEARING



Min size shown is for crushing only number where bearings occur. reaction section indicates joint (supports) occur. Icons vary but Indicates location where bearings

## Industry Standards:

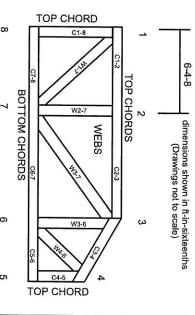
ANSI/TPI1: National Design Specification for Metal Plate Connected Wood Truss Construction.

DSB-89:

Guide to Good Practice for Handling, Installing & Bracing of Metal Plate Building Component Safety Information Design Standard for Bracing.

Connected Wood Trusses

# Numbering System



JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

NUMBERS/LETTERS. CHORDS AND WEBS ARE IDENTIFIED BY END JOINT

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988 ER-3907, ESR-2362, ESR-1397, ESR-3282

truss unless otherwise shown. Trusses are designed for wind loads in the plane of the

section 6.3 These truss designs rely on lumber values Lumber design values are in accordance with ANSI/TPI 1 established by others.

© 2012 MiTek® All Rights Reserved



MiTek Engineering Reference Sheet: MII-7473 rev. 10/03/2015

# General Safety Notes

## Damage or Personal Injury Failure to Follow Could Cause Property

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building all other interested parties. designer, erection supervisor, property owner and
- Cut members to bear tightly against each other.

g

5

joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI 1. Place plates on each face of truss at each

6

- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber
- Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber. shall not exceed 19% at time of fabrication.
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements
- Lumber used shall be of the species and size, and in all respects, equal to or better than that
- Top chords must be sheathed or purlins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft. spacing, or less, if no ceiling is installed, unless otherwise noted
- Connections not shown are the responsibility of others
- Do not cut or alter truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise.
- Use of green or treated lumber may pose unacceptable project engineer before use environmental, health or performance risks. Consult with
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria.



MiTek USA, Inc.

7777 Greenback Lane Suite 109 Citrus Heights, CA, 95610 Telephone 916/676-1900 Fax 916/676-1909

Re: SidesBarn

The truss drawing(s) referenced below have been prepared by MiTek USA, Inc. under my direct supervision based on the parameters provided by U.S. Components-Tucson, Az.

Pages or sheets covered by this seal: R52523458 thru R52523459

My license renewal date for the state of Arizona is September 30, 2019.

Arizon COA: 11906-0

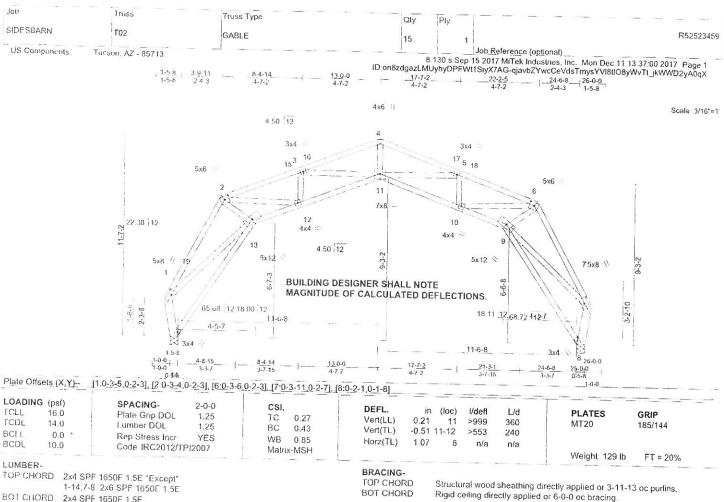
Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.



December 11,2017

Hernandez, Marcos

**IMPORTANT NOTE:** Truss Engineer's responsibility is solely for design of individual trusses based upon design parameters shown on referenced truss drawings. Parameters have not been verified as appropriate for any use. Any location identification specified is for file reference only and has not been used in preparing design. Suitability of truss designs for any particular building is the responsibility of the building designer, not the Truss Engineer, per ANSI/TPI-1, Chapter 2.



2x4 SPF 1650F 1.5E WEBS 2x4 HF Stud/Std \*Except 2-13: 2x4 SPF 1650F 1.5E

REACTIONS. (lb/size) 8=969/0-5-8, 14=1018/0-5-8

Max Horz 14=-205(LC 11)

Max Uplift 8=-69(LC 11), 14=-96(LC 10)

FORCES. (lb) - Max. Comp /Max. Ten. - All forces 250 (lb) or less except when shown.

2-3=-2568/659, 3-4=-3003/627, 4-5=-3003/627, 5-6=-2573/648, 1-14=-811/304, TOP CHORD

7-8=-848/297, 1-2=-1762/488, 6-7=-1748/471

BOT CHORD 12-13=-467/1528, 11-12=-496/2540, 10-11=-485/2545, 9-10=-315/1260, 13-14=-332/265

WEBS 4-11=-300/1821, 5-11=-63/596, 5-10=-473/162, 6-9=-105/487, 3-11=0/484,

3-12=-474/114, 1-13=-232/1210, 6-10=-247/1199, 2-12=-140/1204, 7-9=-209/1110,

2-13=-198/636

### NOTES-

1) Unbalanced roof live loads have been considered for this design.

2) Wind: ASCE 7-10; Vult=115mph (3-second gust) V(IRC2012)=91mph; TCDL=8.4psf; BCDL=6.0psf; h=33ft; Cat. II; Exp C; enclosed; MWFRS (envelope) gable end zone and C-C Exterior(2) 0-9-13 to 7-10-15, Interior(1) 7-10-15 to 9-0-0. Exterior(2) 9-0-0 to 13-0-0, Intenor(1) 17-0-0 to 18-1-1, Exterior(2) 22-1-1 to 25-0-2 zone, cantilever left and right exposed; end vertical left and right exposed C-C for members and forces & MWFRS for reactions shown; Lumber DOL=1.33 plate grip DOL=1.33

Provide adequate drainage to prevent water ponding.

- 4) This truss has been designed for a 10 0 psf bottom chord live load nonconcurrent with any other live loads.
- 5) \* This truss has been designed for a live load of 20 0psf on the bottom chord in all areas where a rectangle 3-6-0 tall by 2-0-0 wide will fit between the bottom chord and any other members.
- 6) Beating at joint(s) 8, 14 considers parallel to grain value using ANSI/TPI 1 angle to grain formula. Building designer should verify capacity of bearing surface
- 7) Provide mechanical connection (by others) of truss to bearing plate capable of withstanding 100 lb uplift at joint(s) 8, 14
- 8) Graphical purlin representation does not depict the size or the orientation of the purlin along the top and/or boltom chord



EXPIRES: 09/30/2019 December 11,2017

WARNING Verify design parameters and READ NOTES ON THIS AND INCLUDED MITEK REFERENCE PAGE MII-7473 rev. 10:03/2015 BEFORE USE Design said for use only with thit leter connectors. This design is based only upon parameters shown, and us for an individual building component, not activity the applicability of design parameters shown, and us for an individual building component, not activity on Before use, the building designer must verify the applicability of design parameters and properly incorporate this design into the reverall occiding design. Practing indicated is to prevent buckling of individual truss web and/or chiral demands only. Additional temporary and permanent bracing is always to parameter for stability and to prevent collapse with possible personal injury and properly demands. For general guidance regarding the statistication, storage, delivery serious and bracing of trusses and truss systems see:

ANSI/TP11 Quality Criteria, DSB-89 and BCSI Building Component.

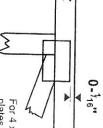


## Symbols

# PLATE LOCATION AND ORIENTATION



Center plate on joint unless x, y offsets are indicated.
Dimensions are in ft-in-sixteenths.
Apply plates to both sides of truss and fully embed teeth.



For  $4 \times 2$  orientation, locate plates 0-  $h_{t\bar{t}}$  from outside edge of truss.

00

0

S

This symbol indicates the required direction of slots in connector plates.

\* Plate location details available in MiTek 20/20 software or upon request.

### PLATE SIZE

4 × 4

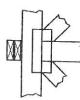
The first dimension is the plate width measured perpendicular to slots. Second dimension is the length parallel to slots.

## LATERAL BRACING LOCATION



Indicated by symbol shown and/or by text in the bracing section of the output. Use T or I bracing if indicated.

### BEARING



Indicates location where bearings (supports) occur. Icons vary but reaction section indicates joint number where bearings occur. Min size shown is for crushing only

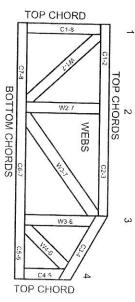
## Industry Standards: ANSI/TPI1: National

National Design Specification for Metal Plate Connected Wood Truss Construction. Design Standard for Bracing.
Building Component Safety Information, Guide to Good Practice for Handling.
Installing & Bracing of Metal Plate Connected Wood Trusses.

DSB-89

# Numbering System





JOINTS ARE GENERALLY NUMBERED/LETTERED CLOCKWISE AROUND THE TRUSS STARTING AT THE JOINT FARTHEST TO THE LEFT.

CHORDS AND WEBS ARE IDENTIFIED BY END JOINT NUMBERS/LETTERS.

## PRODUCT CODE APPROVALS

ICC-ES Reports:

ESR-1311, ESR-1352, ESR1988 ER-3907, ESR-2362, ESR-1397, ESR-3282

Trusses are designed for wind loads in the plane of the truss unless otherwise shown.

Lumber design values are in accordance with ANSI/TPI 1 section 6.3 These truss designs rely on lumber values established by others.

© 2012 MiTek® All Rights Reserved



MiTek Engineering Reference Sheet MII-7473 rev. 10/03/2015

# General Safety Notes

# Failure to Follow Could Cause Property Damage or Personal Injury

- Additional stability bracing for truss system, e.g. diagonal or X-bracing, is always required. See BCSI.
- Truss bracing must be designed by an engineer. For wide truss spacing, individual lateral braces themselves may require bracing, or alternative Tor I bracing should be considered.
- Never exceed the design loading shown and never stack materials on inadequately braced trusses.
- Provide copies of this truss design to the building designer, erection supervisor, property owner and all other interested parties.
- Cut members to bear tightly against each other
- Place plates on each face of truss at each joint and embed fully. Knots and wane at joint locations are regulated by ANSI/TPI1.
- Design assumes trusses will be suitably protected from the environment in accord with ANSI/TPI 1.
- Unless otherwise noted, moisture content of lumber shall not exceed 19% at time of fabrication.
- . Unless expressly noted, this design is not applicable for use with fire retardant, preservative treated, or green lumber
- Camber is a non-structural consideration and is the responsibility of truss fabricator. General practice is to camber for dead load deflection.
- Plate type, size, orientation and location dimensions indicated are minimum plating requirements.
- Lumber used shall be of the species and size, and in all respects, equal to or better than that specified.
- Top chords must be sheathed or pudins provided at spacing indicated on design.
- Bottom chords require lateral bracing at 10 ft, spacing, or less, if no ceiling is installed, unless otherwise noted.
- Connections not shown are the responsibility of others
- . Do not cut or after truss member or plate without prior approval of an engineer.
- Install and load vertically unless indicated otherwise
- 18. Use of green or treated furniber may pose unacceptable environmental, health or porformance risks. Consult with project engineer before use.
- Review all portions of this design (front, back, words and pictures) before use. Reviewing pictures alone is not sufficient.
- Design assumes manufacture in accordance with ANSI/TPI 1 Quality Criteria